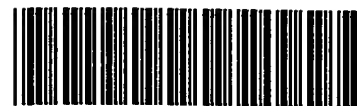# RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 08/444,790 A

Source: TWO

Date Processed by STIC: 7-27-00

ENTERED

IFWO

RAW SEQUENCE LISTING   DATE: 01/27/2005
PATENT APPLICATION: US/08/444,790A   TIME: 13:16:01

Input Set : A:\40451B.txt
Output Set: N:\CRF4\01272005\H444790A.raw

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      3 <110> APPLICANT: Brockhaus, et al.
      5 <120> TITLE OF INVENTION: Human TNF Receptor
      7 <130> FILE REFERENCE: 01017/40451C
C-->  9 <140> CURRENT APPLICATION NUMBER: US/08/444,790A
     10 <141> CURRENT FILING DATE: 1995-05-19
     12 <150> PRIOR APPLICATION NUMBER: CH 3319/89
     13 <151> PRIOR FILING DATE: 1989-09-12
     15 <150> PRIOR APPLICATION NUMBER: CH 786/90
     16 <151> PRIOR FILING DATE: 1990-03-08
     18 <150> PRIOR APPLICATION NUMBER: CH 1347/90
     19 <151> PRIOR FILING DATE: 1990-04-20
     21 <150> PRIOR APPLICATION NUMBER: US 07/580,013
     22 <151> PRIOR FILING DATE: 1990-09-10
     24 <150> PRIOR APPLICATION NUMBER: US 08/095,640
     25 <151> PRIOR FILING DATE: 1993-07-21
     27 <160> NUMBER OF SEQ ID NOS: 26
     29 <170> SOFTWARE: PatentIn version 3.3
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     32 <211> LENGTH: 2111
     33 <212> TYPE: DNA
     34 <213> ORGANISM: Homo sapiens
     36 <400> SEQUENCE: 1
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     39 ccctcaactg tcaccccaag gcacttggga cgtcctggac agaccgagtc ccgggaagcc     120
     41 ccagcactgc cgctgccaca ctgccctgag cccaaatggg ggagtgagag gccatagctg     180
     43 tctggcatgg gcctctccac cgtgcctgac ctgctgctgc cgctggtgct cctggagctg     240
     45 ttggtgggaa tataccccct caggggttat ggactggtcc ctcacctagg gacagggag     300
     47 aagagagata gtgtgtgtcc ccaaggaaaa tatatccacc ctcaaaataa ttcgatttgc     360
     49 tgtaccaagt gccacaaagg aacctacttg tacaatgact gtccaggccc ggggcaggat     420
     51 acggactgca gggagtgtga gagcggctcc ttcaccgctt cagaaaacca cctcagacac     480
     53 tgcctcagct gctccaaatg ccgaaaggaa atgggtcagg tggagatctc ttcttgcaca     540
     55 gtggaccggg acaccgtgtg tggctgcagg aagaaccagt accggcatta ttggagtgaa     600
     57 aaccttttcc agtgcttcaa ttgcagcctc tgcctcaatg gaccgtgca cctctcctgc     660
     59 caggagaaac agaacaccgt gtgcacctgc catgcaggtt tctttctaag agaaaacgag     720
     61 tgtgtctcct gtagtaactg taagaaaagc ctggagtgca cgaagttgtg cctaccccag     780
     63 attgagaatg ttaagggcac tgaggactca ggcaccacag tgctgttgcc cctggtcatt     840
     65 ttctttggtc tttgcctttt atccctcctc ttcattggtt taatgtatcg ctaccaacgg     900
     67 tggaagtcca agctctactc cattgtttgt gggaaatcga cacctgaaaa agagggggag     960
     69 cttgaaggaa ctactactaa gcccctggcc ccaaacccaa gcttcagtcc cactccaggc    1020
     71 ttcacccca ccctgggctt cagtcccgtg cccagttcca ccttcacctc cagctccacc    1080
     73 tatacccccg gtgactgtcc caactttgcg gctccccgca gagaggtggc accaccctat    1140
     75 caggggggctg acccatcct tgcgacagcc ctcgcctccg accccatccc caacccccctt    1200
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RAW SEQUENCE LISTING
PATENT APPLICATION: US/08/444,790A

DATE: 01/27/2005
TIME: 13:16:01

Input Set : A:\40451B.txt
Output Set: N:\CRF4\01272005\H444790A.raw

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 83 gcgcaataca gcatgctggc gacctggagg cggcgcacgc cgcggcgcga ggccacgctg   1440
 85 gagctgctgg gacgcgtgct ccgcgacatg gacctgctgg gctgcctgga ggacatcgag   1500
 87 gaggcgcttt gcggccccgc cgccctcccg cccgcgccca gtcttctcag atgaggctgc   1560
 89 gccctgcgg gcagctctaa ggaccgtcct gcgagatcgc cttccaaccc cacttttttc   1620
 91 tggaaaggag gggtcctgca ggggcaagca ggagctagca gccgcctact tggtgctaac   1680
 93 ccctcgatgt acatagcttt tctcagctgc ctgcgcgccg ccgacagtca gcgctgtgcg   1740
 95 cgcggagaga ggtgcgccgt gggctcaaga gcctgagtgg gtggtttgcg aggatgaggg   1800
 97 acgctatgcc tcatgcccgt tttgggtgtc ctcaccagca aggctgctcg ggggcccctg   1860
 99 gttcgtccct gagccttttt cacagtgcat aagcagtttt ttttgttttt gttttgtttt   1920
101 gttttgtttt taaatcaatc atgttacact aatagaaact tggcactcct gtgccctctg    1980
103 cctggacaag cacatagcaa gctgaactgt cctaaggcag gggcgagcac ggaacaatgg   2040
105 ggccttcagc tggagctgtg gactttgta catacactaa aattctgaag ttaaaaaaaa   2100
107 aacccgaatt c                                                 2111
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110 <210> SEQ ID NO: 2
111 <211> LENGTH: 455
112 <212> TYPE: PRT
113 <213> ORGANISM: Homo sapiens
115 <400> SEQUENCE: 2
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117 Met Gly Leu Ser Thr Val Pro Asp Leu Leu Leu Pro Leu Val Leu Leu
118 1               5                  10                  15
121 Glu Leu Leu Val Gly Ile Tyr Pro Ser Gly Val Ile Gly Leu Val Pro
122              20                  25                  30
125 His Leu Gly Asp Arg Glu Lys Arg Asp Ser Val Cys Pro Gln Gly Lys
126          35                  40                  45
129 Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys Thr Lys Cys His Lys
130      50                  55                  60
133 Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln Asp Thr Asp
134 65                  70                  75                  80
137 Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser Glu Asn His Leu
138              85                  90                  95
141 Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu Met Gly Gln Val
142             100                 105                 110
145 Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr Val Cys Gly Cys Arg
146         115                 120                 125
149 Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu Phe Gln Cys Phe
150     130                 135                 140
153 Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His Leu Ser Cys Gln Glu
154 145                 150                 155                 160
157 Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe Phe Leu Arg Glu
158                 165                 170                 175
161 Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys Ser Leu Glu Cys Thr
162             180                 185                 190
165 Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys Gly Thr Glu Asp Ser
166         195                 200                 205
169 Gly Thr Thr Val Leu Leu Pro Leu Val Ile Phe Phe Gly Leu Cys Leu
170     210                 215                 220
173 Leu Ser Leu Leu Phe Ile Gly Leu Met Tyr Arg Tyr Gln Arg Trp Lys
```

```
174 225                    230                    235                    240
177 Ser Lys Leu Tyr Ser Ile Val Cys Gly Lys Ser Thr Pro Glu Lys Glu
178                    245                    250                    255
181 Gly Glu Leu Glu Gly Thr Thr Thr Lys Pro Leu Ala Pro Asn Pro Ser
182                    260                    265                    270
185 Phe Ser Pro Thr Pro Gly Phe Thr Pro Thr Leu Gly Phe Ser Pro Val
186            275                    280                    285
189 Pro Ser Ser Thr Phe Thr Ser Ser Ser Thr Tyr Thr Pro Gly Asp Cys
190         290                    295                    300
193 Pro Asn Phe Ala Ala Pro Arg Arg Glu Val Ala Pro Pro Tyr Gln Gly
194 305                    310                    315                    320
197 Ala Asp Pro Ile Leu Ala Thr Ala Leu Ala Ser Asp Pro Ile Pro Asn
198                    325                    330                    335
201 Pro Leu Gln Lys Trp Glu Asp Ser Ala His Lys Pro Gln Ser Leu Asp
202                    340                    345                    350
205 Thr Asp Asp Pro Ala Thr Leu Tyr Ala Val Val Glu Asn Val Pro Pro
206            355                    360                    365
209 Leu Arg Trp Lys Glu Phe Val Arg Arg Leu Gly Leu Ser Asp His Glu
210         370                    375                    380
213 Ile Asp Arg Leu Glu Leu Gln Asn Gly Arg Cys Leu Arg Glu Ala Gln
214 385                    390                    395                    400
217 Tyr Ser Met Leu Ala Thr Trp Arg Arg Arg Thr Pro Arg Arg Glu Ala
218                    405                    410                    415
221 Thr Leu Glu Leu Leu Gly Arg Val Leu Arg Asp Met Asp Leu Leu Gly
222            420                    425                    430
225 Cys Leu Glu Asp Ile Glu Glu Ala Leu Cys Gly Pro Ala Ala Leu Pro
226            435                    440                    445
229 Pro Ala Pro Ser Leu Leu Arg
230     450                    455
233 <210> SEQ ID NO: 3
234 <211> LENGTH: 2339
235 <212> TYPE: DNA
236 <213> ORGANISM: Homo sapiens
238 <400> SEQUENCE: 3
239 tcggacaccg tgtgtgactc ctgtgaggac agcacataca cccagctctg gaactgggtt    60
241 cccgagtgct tgagctgtgg ctcccgctgt agctctgacc aggtggaaac tcaagcctgc   120
243 actcgggaac agaaccgcat ctgcacctgc aggcccggct ggtactgcgc gctgagcaag   180
245 caggaggggt gccggctgtg cgcgccgctg ccgaagtgcc gcccgggctt cggcgtggcc   240
247 agaccaggaa ctgaaacatc agacgtggtg tgcaagccct gtgccccggg gacgttctcc   300
249 aacacgactt catccacgga tatttgcagg ccccaccaga tctgtaacgt ggtggccatc   360
251 cctgggaatg caagcaggga tgcagtctgc acgtccacgt cccccacccg gagtatggcc   420
253 ccaggggcag tacacttacc ccagccagtg tccacacgat cccaacacac gcagccaagt   480
255 ccagaaccca gcactgctcc aagcacctcc ttcctgctcc caatgggccc cagcccccca   540
257 gctgaaggga gcactggcga cttcgctctt ccagttggac tgattgtggg tgtgacagcc   600
259 ttgggtctac taataatagg agtggtgaac tgtgtcatca tgacccaggt gaaaaagaag   660
261 cccttgtgcc tgcagagaga agccaaggtg cctcacttgc ctgccgataa ggcccggggt   720
263 acacagggcc ccgagcagca gcacctgctg atcacagcgc cgagctccag cagcagctcc   780
265 ctgagagct cggccagtgc gttggacaga agggcgccca ctcggaacca gccacaggca   840
267 ccaggcgtgg aggccagtgg ggccggggag cccgggcca gcaccgggag ctcagcagat   900
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269 tcttcccctg gtggccatgg gacccaggtc aatgtcacct gcatcgtgaa cgtctgtagc   960
271 agctctgacc acagctcaca gtgctcctcc caagccagct ccacaatggg agacacagat  1020
273 tccagcccct cggagtcccc gaaggacgag caggtcccct tctccaagga ggaatgtgcc  1080
275 tttcggtcac agctggagac gccagagacc ctgctgggga gcaccgaaga gaagcccctg  1140
277 cccctttggag tgcctgatgc tgggatgaag cccagttaac caggccggtg tgggctgtgt  1200
279 cgtagccaag gtggctgagc cctggcagga tgaccctgcg aagggggccct ggtccttcca  1260
281 ggcccccacc actaggactc tgaggctctt tctgggccaa gttcctctag tgccctccac  1320
283 agccgcagcc tccctctgac ctgcaggcca agagcagagg cagcgagttg tggaaagcct  1380
285 ctgctgccat ggcgtgtccc tctcggaagg ctggctgggc atggacgttc ggggcatgct  1440
287 gggggcaagtc cctgagtctc tgtgacctgc cccgcccagc tgcacctgcc agcctggctt  1500
289 ctggagccct tgggtttttt gtttgtttgt ttgtttgttt gtttgtttct ccccctgggc  1560
291 tctgcccagc tctggcttcc agaaaacccc agcatccttt tctgcagagg ggctttctgg  1620
293 agaggaggga tgctgcctga gtcacccatg aagacaggac agtgcttcag cctgaggctg  1680
295 agactgcggg atggtcctgg ggctctgtgc agggaggagg tggcagccct gtagggaacg  1740
297 gggtccttca agttagctca ggaggcttgg aaagcatcac ctcaggccag gtgcagtggc  1800
299 tcacgcctat gatcccagca ctttgggagg ctgaggcggg tggatcacct gaggttagga  1860
301 gttcgagacc agcctggcca acatggtaaa accccatctc tactaaaaat acagaaatta  1920
303 gccgggcgtg gtggcgggca cctatagtcc cagctactca gaagcctgag gctgggaaat  1980
305 cgtttgaacc cgggaagcgg aggttgcagg gagccgagat cacgccactg cactccagcc  2040
307 tgggcgacag agcgagagtc tgtctcaaaa gaaaaaaaaa aagcaccgcc tccaaatgct  2100
309 aacttgtcct tttgtaccat ggtgtgaaag tcagatgccc agagggccca ggcaggccac  2160
311 catattcagt gctgtggcct gggcaagata acgcacttct aactagaaat ctgccaattt  2220
313 tttaaaaaag taagtaccac tcaggccaac aagccaacga caaagccaaa ctctgccagc  2280
315 cacatccaac cccccacctg ccatttgcac cctccgcctt cactccggtg tgcctgcag   2339
320 <210> SEQ ID NO: 4
321 <211> LENGTH: 392
322 <212> TYPE: PRT
323 <213> ORGANISM: Homo sapiens
325 <400> SEQUENCE: 4
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328 1               5                   10                  15
331 Trp Asn Trp Val Pro Glu Cys Leu Ser Cys Gly Ser Arg Cys Ser Ser
332             20                  25                  30
335 Asp Gln Val Glu Thr Gln Ala Cys Thr Arg Glu Gln Asn Arg Ile Cys
336         35                  40                  45
339 Thr Cys Arg Pro Gly Trp Tyr Cys Ala Leu Ser Lys Gln Glu Gly Cys
340     50                  55                  60
343 Arg Leu Cys Ala Pro Leu Pro Lys Cys Arg Pro Gly Phe Gly Val Ala
344 65                  70                  75                  80
347 Arg Pro Gly Thr Glu Thr Ser Asp Val Val Cys Lys Pro Cys Ala Pro
348                 85                  90                  95
351 Gly Thr Phe Ser Asn Thr Thr Ser Ser Thr Asp Ile Cys Arg Pro His
352             100                 105                 110
355 Gln Ile Cys Asn Val Val Ala Ile Pro Gly Asn Ala Ser Arg Asp Ala
356         115                 120                 125
359 Val Cys Thr Ser Thr Ser Pro Thr Arg Ser Met Ala Pro Gly Ala Val
360     130                 135                 140
363 His Leu Pro Gln Pro Val Ser Thr Arg Ser Gln His Thr Gln Pro Ser
364 145                 150                 155                 160
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RAW SEQUENCE LISTING   DATE: 01/27/2005
PATENT APPLICATION: US/08/444,790A   TIME: 13:16:01

Input Set : A:\40451B.txt
Output Set: N:\CRF4\01272005\H444790A.raw

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367 Pro Glu Pro Ser Thr Ala Pro Ser Thr Ser Phe Leu Leu Pro Met Gly
368             165             170             175
371 Pro Ser Pro Pro Ala Glu Gly Ser Thr Gly Asp Phe Ala Leu Pro Val
372             180             185             190
375 Gly Leu Ile Val Gly Val Thr Ala Leu Gly Leu Leu Ile Ile Gly Val
376         195             200             205
379 Val Asn Cys Val Ile Met Thr Gln Val Lys Lys Lys Pro Leu Cys Leu
380         210             215             220
383 Gln Arg Glu Ala Lys Val Pro His Leu Pro Ala Asp Lys Ala Arg Gly
384 225             230             235             240
387 Thr Gln Gly Pro Glu Gln Gln His Leu Leu Ile Thr Ala Pro Ser Ser
388             245             250             255
391 Ser Ser Ser Ser Leu Glu Ser Ser Ala Ser Ala Leu Asp Arg Arg Ala
392             260             265             270
395 Pro Thr Arg Asn Gln Pro Gln Ala Pro Gly Val Glu Ala Ser Gly Ala
396         275             280             285
399 Gly Glu Ala Arg Ala Ser Thr Gly Ser Ser Ala Asp Ser Ser Pro Gly
400         290             295             300
403 Gly His Gly Thr Gln Val Asn Val Thr Cys Ile Val Asn Val Cys Ser
404 305             310             315             320
407 Ser Ser Asp His Ser Ser Gln Cys Ser Ser Gln Ala Ser Ser Thr Met
408             325             330             335
411 Gly Asp Thr Asp Ser Ser Pro Ser Glu Ser Pro Lys Asp Glu Gln Val
412             340             345             350
415 Pro Phe Ser Lys Glu Glu Cys Ala Phe Arg Ser Gln Leu Glu Thr Pro
416         355             360             365
419 Glu Thr Leu Leu Gly Ser Thr Glu Glu Lys Pro Leu Pro Leu Gly Val
420         370             375             380
423 Pro Asp Ala Gly Met Lys Pro Ser
424 385             390
427 <210> SEQ ID NO: 5
428 <211> LENGTH: 28
429 <212> TYPE: PRT
430 <213> ORGANISM: Artificial sequence
432 <220> FEATURE:
433 <223> OTHER INFORMATION: Synthetic peptide
435 <220> FEATURE:
436 <221> NAME/KEY: misc_feature
437 <222> LOCATION: (25)..(25)
438 <223> OTHER INFORMATION: Xaa = any or unknown amino acid
440 <400> SEQUENCE: 5
442 Leu Val Pro His Leu Gly Asp Arg Glu Lys Arg Asp Ser Val Cys Pro
443 1               5               10              15
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W--> 446 **Gln Gly Lys Tyr Ile His Pro Glu Xaa Asn Ser Ile**

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447             20              25
449 <210> SEQ ID NO: 6
450 <211> LENGTH: 15
451 <212> TYPE: PRT
452 <213> ORGANISM: Artificial sequence
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RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 01/27/2005
PATENT APPLICATION: **US/08/444,790A**   TIME: 13:16:02

Input Set : **A:\40451B.txt**
Output Set: **N:\CRF4\01272005\H444790A.raw**

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:5; Xaa Pos. 25
Seq#:10; Xaa Pos. 8
Seq#:11; Xaa Pos. 2
Seq#:14; Xaa Pos. 9,10,13

VERIFICATION SUMMARY   DATE: 01/27/2005
PATENT APPLICATION: **US/08/444,790A**   TIME: 13:16:02

Input Set : **A:\40451B.txt**
Output Set: **N:\CRF4\01272005\H444790A.raw**

L:9 M:270 C: Current Application Number differs, Replaced Current Application Number
L:446 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:16
L:526 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0
L:549 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0
L:601 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:0